

Early and Periodic Screening

Medi-Screen Program Structure and Standard Setting

JOHN J. McNAMARA, MD, MPH, *Jamaica, New York*

EARLY AND PERIODIC SCREENING, sometimes called Medi-Screen, is a federally mandated health screening program for the Medicaid-eligible population under age 21.

This program has a large potential for introducing change into the medical care system. It also has generated considerable confusion, which may be lessened by a discussion of the program's historical and conceptual development, the federal guidelines for program structure and the need for standards which will ensure program benefits. Constraints to program success should also be examined. Finally, some implications of this program for health care in general should be drawn out.

The federal guidelines of June 1972 state: "Congress was concerned about the variations from state to state in the rates of children treated for handicapping conditions and health problems that could lead to chronic illness and disability. Senate and House Committee reports emphasized the need for extending outreach efforts to create awareness of existing health care services, to stimulate the use of these services and to make

services available so that young people can receive medical care before health problems become chronic and irreversible damage occurs."¹

This program was established in 1967 by an amendment to the Social Security Act (under nursing home provision in Medicaid). This law provided: "effective July 1, 1969, such early and periodic screening and diagnosis of individuals who are eligible under the plan and are under the age of 21 to ascertain their physical and mental defects, and such health care, treatment and other measures to control or to ameliorate defects and chronic conditions discovered thereby, as may be provided in regulations of the secretary [of HEW]."²

The intent of the law is to provide health screening and follow-up services. However, program content was not further defined. Regulations were not published until a lawsuit was filed by the National Welfare Rights Organization.³ When regulations were issued November 4, 1971, they outlined some issues in the program itself but principally placed limits on the treatment services to be provided in conjunction with this program. However, states were instructed to include in their Early Periodic Screening (EPS) programs: "(1) Establishment of administrative mechanisms to identify available screening and diagnostic facilities . . . to assure that individuals . . . who are eligible . . . receive the services, (2) identification

The author is Director of Community Medicine and Ambulatory Care, Queens Hospital Center Affiliation, Long Island Jewish-Hillside Medical Center. Formerly he was Chief of Children and Youth Unit, Bureau of Maternal and Child Health, California State Department of Public Health.

Reprint requests to: J. J. McNamara, MD, MPH, Director, Community Medicine and Ambulatory Care, Queens Hospital Center Affiliation, Long Island Jewish-Hillside Medical Center, 82-68 164th Street, Jamaica, NY 11432.

of those in need of services furnished by Title V (Social Security Act) Grantees, (3) assurance of maximum utilization of existing screening services."⁴ Regulations do identify public sector services such as Maternal and Child Health and Crippled Children Services as major providers. It is assumed that screening services already exist for the child age group, and that only an outreach component, or the way to bring these services and the children together, is lacking.

Although the Kaiser-Permanente system⁵ has addressed the question of multiphasic screening in children, aside from the very different model provided in the private practitioner's office and the well child conference, little formal health screening for children exists. It should be noted that the traditional well child conference is designed to provide preventive health services such as immunizations, nutritional advice, and ongoing monitoring of growth and development. An educational thrust is of prime importance. In some settings health assessment by physical examination and screening with laboratory tests is not done. The well child conference also provides a one-to-one interaction between mother and health professional. In many settings the physician is directly involved.

This one-to-one interaction is not the model envisioned in Medi-Screen. The guidelines most nearly resemble the multiphasic screening model. Often the primary purpose of such screening is to establish the health status of a population group as a first step toward improving their level of health. Determining health status and detecting abnormalities *may* lead to diagnosis and treatment and may prevent the progression of illness.⁶ However, direct responsibility for the health care of populations, except in limited contexts, does not exist. The problem of evaluation and follow-up after the health data are collected is the major challenge facing a program such as Medi-Screen. In their fully developed, automated and computerized form "mass screening programs essentially may require the reorganization of medical practice and the delivery of health services to the population."⁷

More extensive federal guidelines were issued in June 1972, delineating program scope and procedure in EPS. A minimal screening program must include, the regulations stated, "a health and developmental history (physical and mental), an

assessment of physical growth, developmental assessment, inspection for obvious physical defects, ear, nose, mouth and throat inspection (including inspection of teeth and gums), screening tests for cardiac abnormalities, anemia, sickle cell trait, lead poisoning, tuberculosis, diabetes infections and other urinary tract conditions and an assessment of nutritional status and immunization status."⁸ Clearly this represents a minimum assessment of health status. Many important health problems will not be detected by this limited approach.

In line with the multiphasic model, the screening process itself is defined as "quick simple procedures carried out among groups of people to sort apparently well persons from those who have disease." The instructions under the definition state: "Although screening should be performed under the supervision of a physician . . . the carrying out of interviews, observations and tests that can constitute the screening process may not require their presence during screening. Nurses, trained health aides, laboratory technicians and trained volunteers can conduct the screening activity. Screening . . . is intended to be carried out with large groups of individuals . . . and is not generally a service provided on a one-to-one basis."⁹

Out of this concept of screening arise two major issues which determine the shape of developing programs and also present major obstacles to program development. They are:

1. Screening is to be provided by paramedical personnel.
2. Screening is viewed as a mass process.

Provision of this screening service by paramedical personnel assumes that these personnel are available and are legally permitted to perform this service.

In California, for example, availability of adequately trained personnel is problematic. It is assumed in the federal guidelines that nurses can perform all tasks indicated in the basic program without further training. In reality, however, nurses have little or no formal preparation in the physical inspection of children or in developmental testing. Extended role nurses or nurse practitioners are extremely limited in number. As of July 1972, there were five educational institutions preparing pediatric nurse associates in the State of California. Programs are not fully operational, but have a maximum capacity of around 80 grad-

uates a year. They have actually graduated 119 nurses from these programs to date. A study¹⁰ in 1971 identified 256 nurses statewide who were actually taking responsibility in the extended role. Many of these had been prepared by on-job training. It is estimated, however, that 1.2 million children and youths are eligible for this screening program in California. There are too few nurses and other personnel, such as physician's assistants, for the job, and many of those who are available cannot be considered instantly qualified to fit into the screening role, especially in the child age group.

There are questions also about the legal status of the extended role nurse and the nurse practitioner that remain unanswered. For example, in California no licensing beyond the Nursing Practice Act exists. This severely limits the kinds of activity that can be performed and the supervision required. For example, independent administration of immunizations is not permitted.¹¹ The status of physician's assistants has been qualified by Articles 15 and 18 of the Business and Professions Code 1970, which defines the physician's assistant and the content of his training. While such personnel are permitted to take a history and carry out physical examinations, the major use of these workers seems to be in the care of adult patients. Although approved training programs do include concepts of growth and development, training in developmental testing is not included. If physician's assistants are to deal with children, formal training for the purpose will be required.

As the first national health program designed to be delivered by paramedical personnel, EPS creates a situation which will force boards of medical examiners and other licensing bodies to address the questions of task analysis in medical care, requirements for the supervision and control of the quality of services delivered by paramedical personnel, and finally the licensing issue itself.

After legal issues become settled, a strong impetus to the development of training programs can be expected. In the interim, it is imperative that the EPS program be instituted by competent, carefully supervised personnel. To ensure this, rigorous standards must be used in defining personnel qualifications for the program. The California Bureau of Maternal and Child Health has developed tentative equivalency standards based on actual tasks to be performed in the screening process. These are in conformity with the joint

statement of the American Nurses Association and the American Academy of Pediatrics.¹² However, equivalency should only be considered as a stop-gap measure until training can be provided through the usual educational channels.

The scope of the program should determine the technical requirements for personnel. Unfortunately, the federal guidelines fail to recognize all the implications of providing this service by paramedical personnel.

For example, with respect to developmental screening, federal guidelines state: "Information from the parent or other person who has knowledge of the child's development, observation of the child, and talking with the child can all be useful in assessing the individual's development. A test such as the Denver Developmental Test can also be used for this purpose. This part of the screening procedure should include assessment of eye-hand coordination, gross motor function (walking, hopping, climbing), fine motor skills (use of hands and fingers), speech development, self-help skills (dressing, eating, personal care) and behavioral development."¹³ This guide appears to approve paramedical personnel's use of both an informal developmental assessment with norms of development and a formal testing method which can be scored and used directly as a basis for referral. Yet it would seem unlikely that paramedical personnel would develop clinical judgment to the point that major over-referral would not become a problem, if the informal approach were selected in a given program. For this reason, personnel standards and program content must be closely coordinated.

Standards for the *process* of screening itself need to be established. In setting the standards, priority should be given to determining whether the screening process is capable of identifying conditions and defects. The question of what is an acceptable level of false positive and false negative in such a program needs to be faced. Quality control measures such as on-site inspection and the surreptitious introduction of persons with known conditions into the screening process to test its effectiveness should be considered.

Program standards must also give attention to mechanisms for appropriate referral and follow-up. Professional societies must be consulted. Such a program requires the medical profession to examine its responsibility toward a given popula-

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tion. There is nothing in this program that directly affects traditional patterns of delivering curative medical care. However, linkages to the screening system need to be established, and mechanism for follow-up formalized. Direct sponsorship of such a screening program by medical societies might be a most effective way to accomplish this.

Professional involvement, at more than the individual level, is also critical because screening is defined as a mass process in which physicians are not directly involved. This immediately raises the question of responsibility for the patient.

Clearly, responsibility does not rest directly on the paramedical personnel who perform this service. An organizational responsibility is incurred through screening for follow-up. On this point, federal guidelines are contradictory. They state: "To assure that the individual receives necessary treatment, the medical assistance unit should be informed of the recommendations resulting from the diagnostic study."¹⁴ This attempt to shift responsibility for follow-up to a second party, namely, the local welfare office, seems unlikely to produce the expected result, given usual welfare caseloads and priorities. Also, it negates a traditional responsibility assumed by the first contact source of medical care.

Other issues, such as patients' waiting time, minimum level of efficiency and ensuring physical privacy, should be dealt with by setting standards for such items. Since such matters often determine utilization, concern with them should be reflected in specific instructions.

Finally, an outreach component is mandated in the program and is a necessary corollary of the goal of reaching the high-risk population. Standards defining ethical outreach need to be established. To preserve patient free choice, outreach and screening programs designed to direct patients into single established channels of referral need to be controlled. Inducements and pressure to steer patients to a particular screening center must be prevented.

Finally, the EPS program can be little more than a public relations gesture unless it has adequate funding and offers a realistic payment schedule for those who provide the services.

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